

## ABSTRACT

A venturi receives incoming material through an inlet tube and subjects the material to pulverization. The material, as it undergoes pulverization, is further subject to moisture extraction and drying. An airflow generator, coupled to the venturi, generates a high speed airflow to pull the material through the venturi and into an inlet aperture in the airflow generator. The airflow generator directs the received pulverized material to an outlet where the material may be subsequently separated from the air. An acoustic emission sensor receives the resonant frequencies generated by material passing through the airflow generator. The resonant frequencies reflect a material flow rate that is adjusted to avoid an overload situation. An automatic balancer system couples to an axel rotating the airflow generator to provide balance, improve efficiency, and eliminate cavitation.